CHAPTER 4



Conducting the Assessment

Prepare the Room

Erase the blackboards and, if necessary, conceal any school materials that would assist the students. You may want to post the "Testing in Progress - Do Not Disturb" sign outside the room.

Then set out the following supplies:

- **★** This manual:
- ★ The sealed bundles of assessment booklets and a pair of scissors to open the bundles;
- ★ If your school will offer accommodations, the packet of accommodation materials;
- ★ The Administration Schedule for the session:
- ★ The Roster of Questionnaires;
- ★ Prepared Post-it notes;
- ★ Sharpened No. 2 pencils (provided by the school); and
- ★ The timer.

For the mathematics session, you will need:

- ★ The calculators:
- ★ The additional materials (e.g., rulers, protractors, geometric shapes, manipulative kits);
- ★ Calculator poster; and
- Mathematics poster.

Included with your supplies will be two posters to be used in the mathematics assessments. One is a picture of the calculator that NAEP

provides and is used for demonstrating the examples in the instructions. The other gives an example of an extended response question and how it should be answered. Both posters should be hung up in the front of the room before the students have assembled.

For the science session you will need:

- Science kits;
- ★ Instructions for Administering Science Kits;
- ★ Pail to collect approximately 1-2 cups of waste water.

While preparing the room, you will need to write on the board¹:

- ★ The NAEP school ID:
- ★ Subject area;
- ★ Teacher names; and
- ★ Corresponding two-digit teacher number.

This information can be found on the Roster of Questionnaires. At the beginning of the assessment, the script will instruct the students to record the 2-digit number of their teacher and the NAEP School ID on their booklet covers. Eighth-grade students will also be asked to record the period number of the subject being assessed on their booklet covers. Students who do not take mathematics or science at the same time every day should be instructed to use Monday's schedule.

TASK 2

Prepare the Booklets for the Assessment

The following directions apply to both subjects. Differences between the two subjects are noted when applicable.

A. Open the Bundles of Booklets

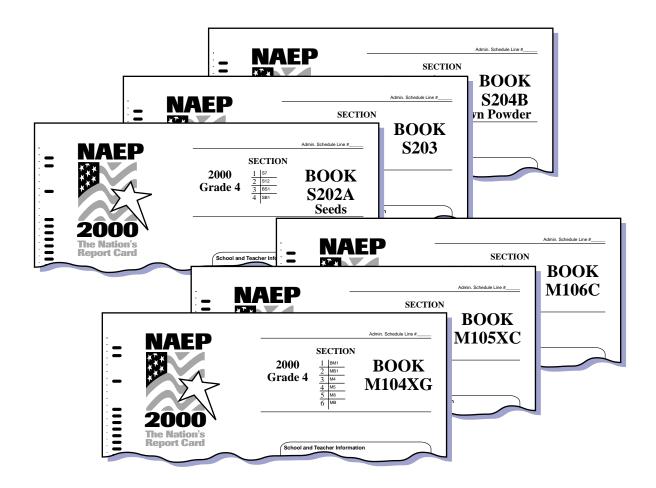
Bundles are not to be opened until shortly before the session begins. If a NAEP representative is not at your school 45 minutes before the session is scheduled to begin, open the bundles of booklets and proceed. If a NAEP representative is at your school, the bundles must be opened in this person's presence. Be sure to open the bundles in the order indicated on the Administration Schedule.

Note that each booklet has a code in the upper right corner. All mathematics booklets begin with the letter "M" and all science booklets begin with the letter "S." The letters are followed by the booklet number.

The letters that follow the numerals on mathematics booklets identify the additional required materials. The letter that follows the numeral on the science booklet identifies the science kit associated with that booklet.

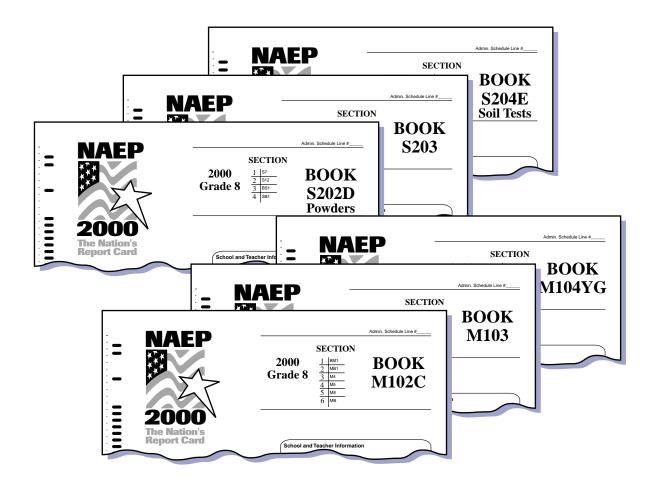
Also, below the science booklet number you will find the name of the science kit. Examples of mathematics and science booklets are shown on the following pages.

Examples of Grade 4 Mathematics and Science Booklet Covers



| Grade | Session Type | Additional Material |
|-------|-----------------|---|
| 4 | Math | R = Ruler C = Calculator X = Set "X" (blue) G = Set "G" (aqua) |
| 4 | Science | Kit A = Seeds Kit B = Unknown Powder Kit C = Markers |

Examples of Grade 8 Mathematics and Science Booklet Covers



| Grade | Session Type | Additional Material |
|-------|-----------------|---|
| 8 | Math | P = Protractor/Ruler C = Calculator Y = Set "Y" (tan) G = Set "G" (aqua) |
| 8 | Science | Kit C = Markers Kit D = Powders Kit E = Soil Tests |

B. Prepare the Assessment Booklets

Materials Needed:

- * Administration Schedule
- ★ Booklets
- ★ Prepared Post-it notes
- ★ Mathematics sessions: Additional materials

Verify that the booklet numbers match those printed on the Administration Schedule. (If they do not match, call NCS at 1-888-627-6237 for assistance.) Then, affix the Post-it note for the first student on the top booklet. Make sure that the student's name on the Post-it note and the ID number on the booklet match those recorded on the Administration Schedule.

The upper right corner of each booklet has space for you to record the student's line number from the Administration Schedule. Recording the line number will expedite putting the booklets in order after the session, but you are not required to enter it.

At this time, for the mathematics sessions, you should also insert the appropriate additional materials, except calculators, which will be handed out separately. The appropriate materials can be determined by the letters following the booklet ID and should be inserted between the cover and the first page of the booklet.

Set the booklet face down and continue affixing Post-it notes until each student on the Administration Schedule has been assigned a booklet. An example of this process is shown on the next page.

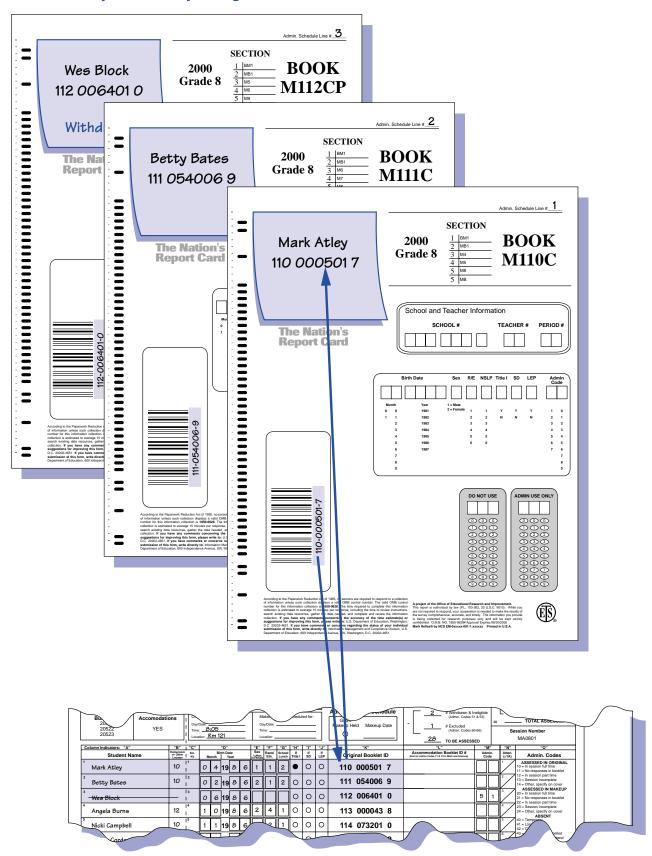
If a student or his/her parents refuse participation in advance of the session, write "student refusal" or "parent refusal" on the Post-it, affix it to the front cover, and set the booklet aside. Booklets assigned to withdrawn, ineligible, and excluded students should be labeled as such and also set aside.

When you have finished affixing the Post-it notes to the booklets, turn the stack right side up so that the booklets are in Administration Schedule order.

Prepare the Accommodation Booklets (if applicable)

If you have assigned an accommodation booklet to a student, you will need to open the sealed bundle of accommodation booklets and remove the booklet. Record on the original booklet assigned to that student an Administration Code of "52" (unused) and set the original booklet aside. Affix the Postit note prepared for the student to the cover of the accommodation booklet and put it in order with the other booklets. If you are conducting a small group or one-on-one session at a later time, affix the Post-it notes and set those booklets aside.

Example of Preparing Assessment Booklets for Distribution²



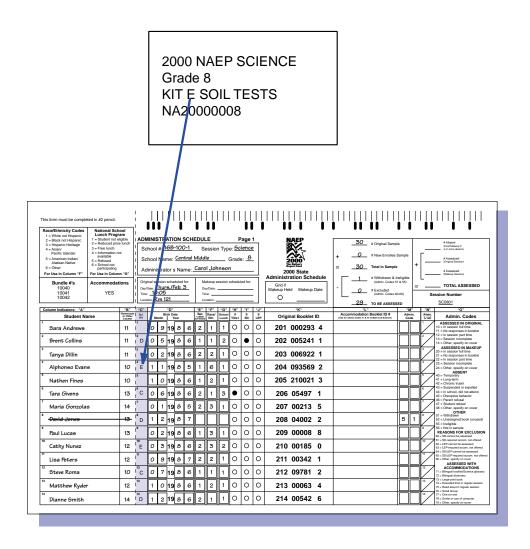
² This exhibit illustrates the procedure for preparing mathematics booklets. However, this same procedure applies to preparing science booklets.

C. Prepare the Science Kits

Materials needed:

- * Administration Schedule
- ★ Science kits

You will receive 18 science kits with your materials. One-half of the students participating in the assessment will complete one of the three hands-on science tasks. Each science kit will be packaged in a Ziploc plastic bag and labeled with the grade and the name of the task. The letters found in the "Sci. Kit" column of the Administration Schedule indicate the kit each student should receive. An example of a science kit label and corresponding science kit indicator is shown below.



To prepare the kits for distribution, separate them into three groups by type. The distribution and administration of the science kits will be discussed later in this chapter.

TASK 3

Administer the Session

A. Use the Scripts in Regular Sessions

Grade 4 schools will use the scripts in Appendix E and grade 8 schools will use the scripts in Appendix F to administer the session. Each grade has a script for the mathematics session and a separate script for the science session. The scripts include the following:

- ★ Introduction to the assessment;
- Instructions for distributing booklets;
- ★ Instructions to the students for coding the NAEP school ID, teacher number, and at grade 8, class period, on the booklet cover;
- ★ Directions from the booklets that are read to the students;
- ★ Instructions to the students for responding to extended open-ended questions;
- ★ Directions on the use of the science kits or instructions on the use of the calculators; and
- **★** The timing of each section.

The script must be read WORD FOR WORD (but with expression) to ensure that all sessions are administered uniformly. The only liberty you may take with the script is the very first line, which reads "Hello. My name is _____." If you feel more comfortable not introducing yourself to students who may already know you, you may omit this line. The remainder of the script must be read verbatim, without additions or deletions.

Note that in the script, the instructions to you, the assessment administrator, are in BOLD, CAPITAL letters. Do not read these to the students.

Begin the session by reading the introduction from the script.

B. Conducting Separate Accommodation Sessions, if Applicable

When administering small group or one-on-one sessions, administrators may make some minor modifications to the script. Since there are so few students, you may want to shorten or simplify the introductory statements depending on the students with whom you are working. The timing of the sections may also be less stringent. For instance, extended time is assumed, so you may give students extra time, if needed. Conversely, students may finish before the allotted time. If after encouraging them to review their answers, the students indicate that they are finished with the section, you may move on to the next section. The basic rule to keep in mind for all sessions is that you cannot provide assistance to the students, with the exception of the general background section and making sure they understand how to record answers.

Guidelines for conducting separate sessions are included in Appendix D. These guidelines should be reviewed by any staff member conducting a separate accommodation session.

C. Use the Bilingual Script in Accommodation Sessions, if Applicable

If you are conducting a separate accommodation session using the bilingual mathematics booklet, you should have someone at the school who is proficient in Spanish read the Spanish script. This script is packaged with the bilingual booklets.

D. Distribute the Booklets

After the introduction, the script instructs you to ask the students to clear their desks. Then, distribute the assessment booklets, reading the students' names in the order listed on the Administration Schedule. Record the attendance status of each student by entering a "

" for present or "A" for absent above the diagonal line in the "Atten. \sqrt{A} " column on the Administration Schedule. If a student is absent, record an "A" on the Post-it note on the booklet cover as well and place it to the side to avoid handing an assigned booklet to the wrong student. At the conclusion of the assessment, you will enter the appropriate Administration Code for each student in the column labeled "Admin. Code." Remove the Post-it note before handing the booklet to the student.

Give the student a sharpened No. 2 pencil along with the booklet.

If a student shows up for a session but his/her name is not on the Administration Schedule, the student may have been selected for the other session. Therefore, you should have the other session's Administration Schedule, or a copy of it, available. Check the schedule for the other session and, if the student's name is on it, tell him/her the time and place of the correct session.

If the student's name does not appear on either Administration Schedule, she or he is not in the sample and should be sent back to class.

If four or more students listed on the Administration Schedule are not present after you have checked in all students who have arrived, wait a few minutes before beginning the session. Consider having your assistant try to locate the missing students. However, do not under any circumstances allow another student to substitute for a student on the Administration Schedule who is absent from the session.

E. Instructions for Using Calculators in Mathematics Sessions

After the students have received their booklets, they will be asked to look at the instructions on the back cover for using the calculator.

These instructions will be reviewed with all students. Your supplies will include 16 calculators for a session of 30-33 students. This will be sufficient to conduct the session because only a fourth of the students use the calculator in each section of the booklet. However, students will need to share calculators for review of the instructions. Your script will guide you through the instructions, how students share calculators for the practice, and how to use both mathematics posters.

F. Code the NAEP School ID Number, Teacher Number, and Class Period (Grade 8 only) on the Booklet Cover

The script instructs the students to enter the NAEP school ID number and teacher number on the booklet covers. Eighth-grade students will also be asked to record the period number during which they take the subject being assessed. The school ID and teacher number comes from the Roster of Questionnaires and should be written on the board before the students arrive.

If the students do not take mathematics or science at the same period every day, instruct them to use Monday's schedule.

G. Directions and Timing for the Sections

Next, the script instructs the students to read the directions about how to record responses.

The content of the cognitive sections varies from book to book, while the background sections are the same.

The sections are timed and students work independently. The end of each section has a stop sign to alert students that they are at the end of the section. You will tell the students when to stop work on a section and when to begin the next section. If they finish a section early, students may review their work in that section only.

Students may NOT go back to previous sections or work ahead in the booklet.

In grade 4 sessions, you will read aloud all of the question and answer choices in the general background section. In grade 8, you will only read aloud the first question to students in mathematics sessions and students in science sessions will read all the background questions to themselves. The scripts contain all of the questions you are to read aloud.

If students ask questions, you may answer their questions about the general background section only. Use the Grade 4 or Grade 8 Background Question-by-Question Specifications found in Appendices E and F to answer these questions.

Grade 4 Mathematics Booklets

The sections of the mathematics booklets are shown here.

| Section 1 | General Student Background Questions | Read Aloud | |
|-----------|--|------------|--|
| Section 2 | Mathematics Background Questions | 6 minutes | |
| Section 3 | Mathematics Items | 15 minutes | |
| Section 4 | Mathematics Items | 15 minutes | |
| Section 5 | Mathematics Items | 15 minutes | |
| Section 6 | 6 Mathematics Motivation Questions Up to 2 minutes | | |

Grade 4 Science Booklets

The sections of the science booklets are shown here.

| Section 1 | Science Items | 20 minutes |
|-----------|--|------------|
| Section 2 | Science Items | 20 minutes |
| Section 3 | General Student Background Questions | Read Aloud |
| Section 4 | Science Background Questions | 7 minutes |
| Section 5 | Hands-on Tasks (1/2 of the students will complete this section) | 20 minutes |

Grade 8 Mathematics Booklets

The sections of the mathematics booklets are shown here.

| Section 1 | General Student Background Questions | 5 minutes |
|-----------|--|-----------------|
| Section 2 | Mathematics Background Questions | 5 minutes |
| Section 3 | Mathematics Items | 15 minutes |
| Section 4 | Mathematics Items | 15 minutes |
| Section 5 | Mathematics Items | 15 minutes |
| Section 6 | Mathematics Student Motivation Questions | Up to 2 minutes |

Grade 8 Science Booklets

The sections of the science booklets are shown here.

| Section 1 | Science Items | 30 minutes |
|-----------|--|------------|
| Section 2 | Science Items | 30 minutes |
| Section 3 | General Student Background Questions | 5 minutes |
| Section 4 | Science Background Questions | 7 minutes |
| Section 5 | Hands-on Tasks (1/2 of the students will complete this section) | 30 minutes |

H. Additional Mathematics Materials

If a booklet requires a calculator, a large "C" will appear on the booklet cover in the upper right-hand corner next to the book number. (See page 56-57 for examples of booklet covers.)

Students are to have a calculator for only those sections of the booklet that require one. Not all booklets require a calculator and only a fourth of the students will need a calculator at any one time. At the beginning of each section of a booklet that requires a calculator, a page of calculator instructions will appear with the statement: "YOU WILL NEED A CALCULATOR FOR THIS SECTION."

Since it is very important that students have a calculator only when working in a section that requires it, calculators must be distributed and collected from individual students at the beginning of each mathematics section (i.e., the third, fourth, and fifth sections of the booklets).

In addition to the instructions and the "C" on the booklet cover, a "C" appears on the outside corner of each page of a section if a calculator is required (as shown below). The purpose of the "C" is to allow you or your assistant to walk around the room and glance at the student's booklet and know whether the student should, or should not, be using a calculator.

The rules for the use of protractors/rulers and additional mathematics materials are less stringent. They are given to students at the beginning of the session. A student who receives a booklet requiring their use may keep the protractor, ruler and/or the additional material until the end of the session. Each section requiring these materials reminds the students to use them when answering the questions in that section. An "R," "P," "G," "X," or "Y" also appears at the outside corner of each page of the section so you can be sure that the student has a protractor, ruler, or the manipulative for that section.

SECTION 5

CP Section 5

YOU WILL NEED A CALCULATOR FOR THIS SECTION.

REMEMBER: You will have to decide whether to use the calculator. For some questions using the calculator is helpful, maybe even necessary, but for other questions the calculator may not be helpful. After each question indicate whether you used the calculator.

I. Administer the Science Kits

One-half of the students taking the science assessment will be dismissed after Section 4 is completed. The script will instruct you to dismiss all students who do not have a letter indicator in Column "C" (labeled "Sci. Kit.") of the Administration Schedule (See the following page for an example.) After those students are dismissed, you will proceed with Section 5.

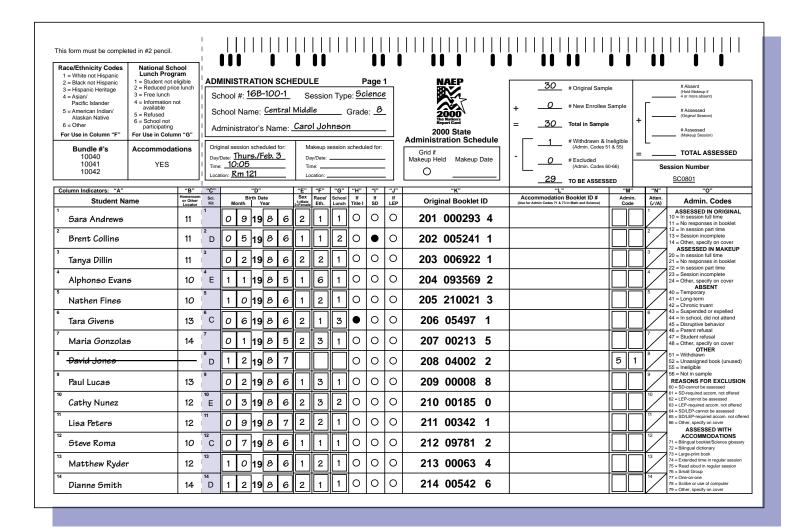
At the beginning of Section 5, the script will instruct you to distribute the science kits. As described on page 60, each kit will be packaged in a Ziploc plastic bag and labeled with the grade and name of the task. The kits should be separated by type. You will deliver the science kits to the students in their seats by asking all those assigned to each kit to raise their hands. Then distribute the correct kit to all students who raised their hands, checking to make sure they are receiving the correct kit. Continue this process with the next kit until each student has received the appropriate kit.

Next, the directions instruct the students to verify that the contents of the kit are complete by using the diagram provided in their booklets. If a student identifies any missing or broken materials, use the Science Supplemental Materials Kit or any unused kit of the same type to replace the item(s).

The Instructions for Administering Science Kits is a summary of each hands-on science task and is included with the shipment of assessment materials. The summary includes a description of the task; the contents of the kit; any hazards/safety precautions: and questions students may ask and responses to those questions. You may not assist students with any questions other than those listed in the summary. You should review the summary for each task before the day of the assessment. While students are working with the kits. circulate around the room to verify that they are working independently and are following safety procedures. The students perform the experiments and are instructed to record their observations and answer the questions in their booklets. You are not responsible for scoring or evaluating the students' performance.

Be sure to have available extra paper towels in case of spills (each kit using a liquid will come with two paper towels), a pail to collect approximately 1-2 cups of waste water, and the large plastic bag for collecting waste.

Example of Science Kit Indicator Column on Administration Schedule





Supervise the Session

A. How to Handle Latecomers

Ask students arriving during booklet distribution to wait at the front of the room while you finish distributing the booklets. Then check the students in, give each student his/her assigned booklet and a pencil and ask him/her to be seated.

In the mathematics session, no student may be admitted once you have begun the calculator instructions.

In the science session, no student may be admitted once the students have begun reading the booklet directions. Students who arrive after this point should be counted as absent and instructed to return to their classrooms.

B. Rules for Supervising the Session

You must observe the following rules while the assessment is under way:

1. Except for the General Background Section of the booklet (Section 1 in mathematics and Section 3 in science booklets), you may not help students answer assessment questions. You may not provide any specific information, answers, or instructions about any question, or assist in reading or spelling. The best response to such a request is, "I'm sorry, I can't answer any questions. Just do the best you can."

- 2. However, you need to be sure that all students understand how to record answers in the booklets, so you may explain where or how to record answers.
- 3. As students are working, you should walk around the room to see that they are working in the appropriate section of the booklet. If a student finishes a section early, you may encourage him or her to go back and review his or her work in that section only.
- 4. Since the completed booklets will be partially scored by machine, only No. 2 pencils may be used, and students must fill in ovals completely with heavy black marks. Students should be sure erasures are complete and neat. There should not be any stray marks in the answer spaces or on the timing tracks of the booklet.

For open-ended items, which are not machine scored, students may make corrections by crossing out words rather than erasing.

The booklets should not be folded or bent. Do NOT put paper clips or permanent gummed labels on the booklets.

5. Students may not use scratch paper. There is enough white space on the pages of the booklets for the students to show all of their work, and it is important that they do so.

- 6. Students are not required to participate in the assessment, however, all students should be encouraged to do so. If a student refuses to participate, either before or during the session, respond by saying that his/her answers are important because she/he represents many other students in the state. If the student refuses after beginning a booklet, collect the booklet and write "Refused" on the front cover and enter the appropriate code (12 in session part time) on the Administration Schedule.
- 7. Students should leave the session only in an emergency situation. If a student cannot complete the session (e.g., she/he has become ill), collect the booklet and record the reason the student left the session on the booklet cover. If a student leaves and returns, record on the booklet cover the section number when the student left and the section number when the student returned. In either case, the student would be coded "12 in session part time."
- 8. Rarely, a student may discover a defective booklet after beginning to work. If so, replace the booklet with another of the same book number (i.e., M106C, M107G, etc.), if possible. Explain the problem and record the new booklet ID number in any open space on the front cover of the defective booklet. If another booklet of the same type is not available, the student should continue working in the defective one. Write a note on the front cover explaining the situation.

- Note on the front cover any other unusual circumstances regarding the assessment of a student.
- 10. Finally, observers should be limited to a few school staff members. Observers should stand quietly in the back of the room or circulate without interfering with the assessment. No photographs of any kind may be taken. This is to ensure the confidentiality of students and to ensure standardized assessment procedures.

To accommodate media requests for information, your state coordinator has been provided with a press release. Any further requests for information about NAEP may be referred to Steven Lazer at Educational Testing Service (ETS). Mr. Lazer may be reached toll-free at 1-800-223-0267.

C. Additional Rules for Supervising the Hands-On Science Section

In your science shipment, you will receive Instructions for Administering Hands-On Science Tasks. These instructions provide you with a list of questions students may ask and appropriate responses.

Conclude the Session

Collect the booklets and materials, making sure that you have

accounted for them all. Since you are asked to return the booklets in Administration Schedule order, the easiest method is to call each student by name in that order to turn in his/her booklet. When you have accounted for all booklets and materials, release the students according to your school's policy.



Protect the Security of Assessment Booklets and Materials

Since many of the assessment items are used from one assessment to another to measure trends in performance, the assessment items must remain secure. However, security is not secrecy. NAEP makes available to schools, staff, and interested parties, a Demonstration Booklet containing the background questions and other nonsecure items. Each assessment administrator will be provided with two copies of the Demonstration Booklet, one for him/her to keep and another for the school principal. These copies may be shared with anyone interested in the study, including other teachers, administrators, and the parents of students selected for the assessment. The Demonstration Booklets may be copied.

However, **do not** give assessment booklets to anyone other than the students involved in the assessment. If any school staff members ask to see the assessment booklets, they may look at UNUSED booklets only. They may NOT copy questions from the unused booklets or examine booklets completed by the students. They may not take booklets from the room.

Each booklet must be accounted for, whether used or unused. The assessment may be seriously jeopardized if any booklets are lost or misplaced.

Student names must not be written on the cover of or inside any assessment booklet. **Students'** names should never leave the school on any NAEP materials.